DOCUMENT RESUME

ED 114 234 RC 008 857

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TITLE Some Qualitative Language Differences Among Selected Monolingual and Spanish-English Bilingual High School Students.
INSTITUTION Northern Illinois Univ., De Kalb.
REPORT NO MWD-76-21
PUB DATE Feb 75
NOTE 8p.

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS *Bilingual Students; Comparative Analysis; Definitions; *High School Students; Language Development; Monolingualism; *Native Speakers; Semantics; *Spanish Speaking; *Vocabulary Development
IDENTIFIERS *English Speaking

ABSTRACT

Three hypotheses were tested: (1) there is no significant difference between the proportions of higher level definitions given by the monolingual students and those of the bilingual students given in English; (2) there is no significant difference between the proportions of higher level definitions given by the monolingual students and those of the bilingual students given in Spanish; and (3) there is no significant difference between the proportions of higher level definitions given by bilingual students in Spanish and in English. Twenty-six bilingual Latino (24 spoke Spanish as a first language and 2 English) and 42 monolingual students were asked to define the following words, taken from the vocabulary section of the revised Stanford Binet intelligence test or slight modifications of these: orange, envelope, puddle, eyelash, dress, lecture, hurry, peculiarity, rule, tolerate, and burn. The Spanish language list was compiled by back translation. Correct responses were categorized according to: (1) definitions stressing the word's function, description, location, or origin (signifying lesser linguistic development) and (2) synonym and synonym modified definitions (indicative of more mature or qualitatively higher language development). Both the first and second hypotheses were rejected; the differences favored the monolingual group. Since no significant difference was found, the third hypothesis was retained. (NQ)

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ED114234

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SOME QUALITATIVE LANGUAGE DIFFERENCES AMONG SELECTED MONOLINGUAL AND SPANISH-ENGLISH BILINGUAL HIGH SCHOOL STUDENTS *

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February 1975

RC008857

*Research was supported by an In-House Grant from Northern Illinois University.

While it is apparent that many factors contribute to this educational deficit, an examination of qualitative language differences between majority students and Latino students can provide the educator with valuable clues which may help to explain the disparity. That is, since the nature of school studies changes during the secondary years in a qualitative sense, the student must experience a similar growth in intellectual and linguistic development in order to achieve at normally expected levels.

At the secondary level, studies draw away from the student's direct personal experiences and from single instances and examples and begin to emphasize how objects and ideas can be grouped and how these groups relate to each other. Thus, success at this level depends upon the student's ability to conceptualize and to perform operations on abstractions.

Normally, this presents no particular problem to the student since his intellectual growth and qualitative linguistic development gives him the tools to handle these changes. It is not clear whether the intellectual growth promotes the attainment of a more sophisticated language or whether the reverse is the case. Dewey, for example, says "...without words as vehicles...no cumulative growth of intelligence would occur." (1933). On the other hand, Plaget sees the reverse to be the case.

> Does the absence of verbal forms expressing logical relations prevent genuine argument from manifesting itself, or does the absence of the desire to argue and collaborate explain the late appearance of these verbal forms?...the absence of the desire to argue and collaborate is obviously the initial factor. (1926)

In either case, these essential developments can be monitored by analyzing the qualitative changes in languages.

Earlier studies, also using the responses to vocabulary lists, have established qualitative changes in language as a function of age. (Reichard and Rapaport, 1943; Feifel and Lorge, 1950; and Kruglov, 1953). These studies noted that with maturity the youngster less often defines a word in terms of its concrete and particularistic qualities and more often defines it in abstract and conceptual ways.

Specifically the younger child usually defined the word in terms of its origin (puddle: "when it rains"), description (envelope: "its made out of paper and has glue on it"), location (eyelash: "its over your eye") or function (orange: "you eat it"). The older, more mature youngster will use synonym and synonym modified definitions (dress: "clothing" or "clothing a woman wears").

This study compared such qualitative language development of a group of bilingual youngsters with that of a group of their monolingual agemates. Specifically, two hypotheses of no differences were tested:

1. There is no significant difference between the proportions of higher level definitions given by the monolingual students and those of the bilingual students given in English.
2. There is no significant difference between the proportions of higher level definitions given by the monolingual students and those of the bilingual students given in Spanish.

Rejecting either null hypothesis in favor of the monolingual group would suggest, then, that serious remedial measures involving both intellectual and linguistic components need be inaugurated to bring such Latino students into the educational mainstream. A rejection in favor of the Latino group would strongly suggest that other factors, such as economic and social factors, may have more influence in producing the disparity between the educational attainments of Latinos and members of the majority group.

In addition, a third hypothesis was tested:

3. There is no significant difference between the proportions of higher level definitions given by bilingual students in Spanish and in English.

Here was an opportunity to provide some evidence as to the relative language development of bilinguals. It has been argued that using Spanish in bilingual classrooms as a means of promoting cultural pride will result in loss of learning. It has been suggested that English soon outstrips Spanish as a language of learning and hence, should remain a vehicle of instruction, especially at the secondary level. Retention of the null hypothesis will support the use of Spanish in bilingual classrooms.

Population. All of the students were enrolled in a large urban high school located in a working class neighborhood. The 42 monolingual students (25F, 17M) averaged 16.7 years of age. All but five were classified as working class (upper-lower) based upon the occupation of the head of household and the location of the residence. The other five classified as lower middle class.

The 26 Latino students (14F, 12M) were all classified as working class. This group averaged 16.3 years of age. Twenty-four of these students spoke Spanish as a first language and two English.

Instrumentation. The vocabulary list consisted of words taken from the vocabulary section of the revised Stanford Binet intelligence test or slight modifications of these words. These words have been previously studied by Green (1931) and descriptions of responses characterizing varying levels of maturity were therefore available.

The Spanish language list was compiled by back translation. The words and their local Spanish language equivalents were orange, naranja; envelope, sobre; puddle, charco; eyelash, pestaña; dress, vestido; lecture, conferencia; hurry, abanzar; peculiarity, peculiaridad; rule, regla; tolerate, tolerar; and burn, quemar.

Procedures. Each English speaking student was asked to define each of the words on the list. A standard introduction was used in each of the interviews. The responses were recorded word for word. For the bilingual group, each student was presented with two word lists, one after the other. The interview used English and Spanish respectively acccrding to the particular list under consideration. The order of presentation of the lists was alternated from student to student to compensate for the possible effects of learning. The responses were then classified following procedures used by Green. Only correct responses were used.

The definitions stressing the function, description, location or origin of the word were sorted into Category II, the class signifiying lesser linguistic development. The synonym and synonym modified definitions were sorted into Category I, the class indicative of more mature or qualitatively higher language development.

This process made possible the calculation of proportions of Category I responses (number of Category I responses/total number of correct responses) for the monolingual group, for the bilingual group responding in English and for the bilingual group responding in Spanish. The proportions were then compared in order to test the three hypotheses. Z ratios were calculated following procedures outlined by Ferguson (1966).

Results. The proportions of Class I responses for the groups are given in Table I.

TABLE I. Proportion of Qualitatively Higher Responses for Monolinguals and Bilinguals

Responses	Monolinguals	Bilinguals (Sp)	Bilinguals (Eng)
Category I	333	116	124
Category II	81	96	95
Proportion Category I	.804	.574	.566

Three tests for significance were made. In the first, the difference between the proportions of Category I responses for the monolingual group and the bilingual group responding in English was found to be highly significant ($z=12.0$, significant at the .01 level). The first hypothesis was rejected and the difference was in favor of the monolingual group.

The second test measured the difference between the same proportions, but for the monolingual group and the bilingual group responding in Spanish. Again, the difference was highly significant and the second null hypothesis was rejected ($z=11.4$, significant at the .01 level). Here too, the difference favored the monolingual group.

The third test measured the difference between the proportions of Category I responses for the bilingual group's English and Spanish responses. The test showed no significant difference and the third null hypothesis was retained (z=.04, N.S.).

Discussion. The retention of the third hypothesis tends to support the use of Spanish as a vehicle of instruction at the secondary level for such students. Whatever affective benefits which may accrue would not be attained at the expense of a loss in the potential to learn as measured by the qualitative development of language.

Nevertheless, the most significant finding concerns the wide disparity between the monolinguals and the bilinguals in their tendency to use abstract and conceptual language. Without a large infusion of remedial work emphasizing, perhaps, a wider range of concrete experiences, increased instruction in abstract operations such as grouping and generalizing, as well as work in language training such as vocabulary development, the Spanish-English bilingual student cannot be expected to compete equally with his Anglo classmates. In later years, these same differences will preclude the effective competition of the Latino with the monolingual English speaker in the abstract world of business and the professions.

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